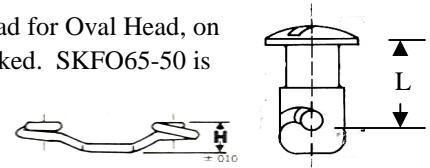


ZLoc® Fastener Principles and Design Options

One usually thinks of two components as part of the ZLoc® Fastener, the Stud and Spring Receptacle. In the case of the EHF Ejector Series Stud, it is retained in the panel, when unlocked by the flange being fastened to the outside panel. Standard ZLoc® Studs, typically use a Stud retainer to prevent them from falling from the panel when unlocked. Two common retainers are the GP (Nylon) washer or the GA (for Oval Head Studs) or GF (for Flush Head Studs). GP (Nylon) Retainers require no installation tooling. GA and GF Grommet/Retainers require tooling to install. GP (Nylon) Grommets do not figure into Total Thickness calculations whereas GA or GF Grommets add .028 to Total Thickness Calculations.

Some helpful hints to remember about ZLoc® Fasteners:

- 2) Thicker panels require shorter Springs for a given Stud. Likewise, thinner panels require a taller Spring for a given Stud.
- 3) When locked, the Stud slot or wing always aligns with the Spring mounting holes. Therefore, whatever angle you mount the Spring Receptacle, the Stud will align with it when locked.
- 4) SKEHF5 Studs should only use S5A or #5 Springs. SKEHF6 Pro Studs can use either S5A or S6A Springs.
- 5) TOTAL THICKNESS is the summation of both the outside and inside panels plus allowances for gaskets, grommets, interference *or panels that do not lay flat together. Panel facing (panels do not lay flat together, and in most applications, they do not) can add greatly to charted values.*
- 6) If springs are mounted to Weld Tabs of Plates, the Tab serves as the Inside Panel and adds .100 to Total Thickness
- 7) If locking torque is too tight or too loose, bend the spring with Skybolt Tool SK-7301
- 8) The Part# of a ZLoc® stud is the L Dimension measured from the head (beneath the head for Oval Head, on the top of the head for Flat Head) to the far end of the slot where the spring rests when locked. SKFO65-50 is .50 from the flat of the head to the end of the slot saddle.
- 9) The Part# of the Spring is the height of the Spring. SK6-375 is .375 high.



Skybolt SK EHF Ejector Series

SKEHF5 and SKEHF6 Self Ejecting Fasteners provide ZLoc® 1/4-turn action with studs that eject from the receptacle when opened. Ejected studs won't hang up when sliding or curved panels are removed and give visual sign of unlocked fastener. The Stud assembly is riveted to the panel with 1/8" rivets or screws.



Total*

SKEHF	Diameter	L	Thickness
SKEHF5-40	5/8	.40	.075-.125
SKEHF5-50	5/8	.50	.150-.225
SKEHF5-50W	5/8	.50	.150-.225
SKEHF5-55	5/8	.55	.225-.275
SKEHF5-60	5/8	.60	.275-.325
SKEHF5-65	5/8	.65	.325-.425
SKEHF6-40*	3/4	.40	.050-.100
SKEHF6-50*	3/4	.50	.100-.175
SKEHF6-55	3/4	.55	.200-.250
SKEHF6-60	3/4	.60	.250-.300
SKEHF6-65	3/4	.65	.300-.350

Skybolt SK EJ Ejector Series

SKEJ Series Ejecting Fasteners utilize a threaded backing collar to secure fastener to outer panel. Made from exclusive Skytanium®, the fastener has the same strength rating as the SKEHF5 Series, is 30% lighter, with superior finish.

No more ugly rivets!



SKEJ	Diameter	L	Thickness
SKEJ-40A	3/4	.50	.075-.125
SKEJ-50A	3/4	.60	.150-.225
SKEJ-50AW	3/4	.60	.150-.225
SKEJ-55A	3/4	.65	.225-.275
SKEJ-60A	3/4	.70	.275-.325
SKEJ-65A	3/4	.75	.325-.425
SK-BN1	Standard Collar .125 Panel		
SK-BN2	Optional Collar .187 Panel		
SK-BN3	Optional Collar .250 Panel		
Use LockTite to retain threaded BN collar			

*Note: Total Thickness figures are for most applications using either the SK5-325 height springs or SK6-375 height springs.

Skybolt ZLoc® Series Fasteners - Racing



Steel and Skytanium®

*Skytanium Strength Ratings Equivalent to Alloy Steel
1/3 the Weight of Steel Buttons*



Skybolt Oval Head Buttons

#5 Series 9/16 Head Diameter

Steel Part#	Skytanium® Part#	Load	Torque	Total* Thickness
SKAO5-50	ZGO5-50	800 lb	40 in-lb	.100-.175

#6 Series 11/16 Head Diameter

Steel Part#	Skytanium® Part#	Load	Torque	Total* Thickness
SKAO65-40	ZGO65-40	1000 lb	60 in-lb	.100-.175
SKAO65-50	ZGO65-50	1000 lb	60 in-lb	.175-.250
SKAO65-55	ZGO65-55	1000 lb	60 in-lb	.250-.300
SKAO65-60	ZGO65-60	1000 lb	60 in-lb	.300-.450
SKAO65-65	ZGO65-65	1000 lb	60 in-lb	.450-.500

Skybolt Flat Head Buttons

#5 Series 9/16 Head Diameter

Steel Part#	Skytanium® Part#	Load	Torque	Total* Thickness
SKFO5-50		800 lb	40 in-lb	.100-.175

#6 Series 11/16 Head Diameter

Steel Part#	Skytanium® Part#	Load	Torque	Total* Thickness
SKFO65-40	ZGF65-40	1000 lb	60 in-lb	.100-.175
SKFO65-50	ZGF65-50	1000 lb	60 in-lb	.175-.250
SKFO65-55	ZGF65-55	1000 lb	60 in-lb	.250-.300
SKFO65-60	ZGF65-60	1000 lb	60 in-lb	.300-.450
SKFO65-65	ZGF65-65	1000 lb	60 in-lb	.450-.500

*Note: Total Thickness figures are for most applications using either SK5-325 height springs or SK6-375 height springs.

Skybolt ZLoc® Series Tabs and Springs

Tabs are welded to frame to serve as a spring mount
Use SSP43 1/8 Steel Pop Rivets.

SK944

Use SK4-225 Spring
Use for all #4 Buttons
.750 Rivet Spacing
.100 Thick (Including Spring Dimple)
Weight = .0115 lbs



SK945EHF

Use SK5-325 Spring
Use for all #5 Buttons & EHF/EJ Studs
1.000 Rivet Spacing
.100 Thick (Including Spring Dimple)
Weight = .0220 lbs



SK945 and SK946

Use SK5-325 or SK6-375 Spring
Use for all #5 or #6 Buttons & EHF Studs
1.000 Rivet Spacing (SK945)
or 1.375 Rivet Spacing (SK946)
.100 Thick (Including Spring Dimple)
Weight = .0260 lbs



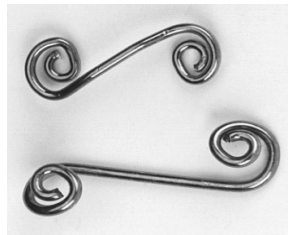
SK945CL

Use SK5-325 Spring
Use CLoc SK214-16A, 244-16, SK245 Series
1.000 Rivet Spacing
.100 Thick (Including Spring Dimple)
Weight = .0165 lbs
Weight = .0165 lbs



ZLoc® SPRINGS (Most Common)

SK4-225 #4 Spring	3/4" Rivet Spacing
SK5-325 #5 Spring	1" Rivet Spacing
SK6-325 #6 Spring	1-3/8 Rivet Spacing
SK6-375 #6 Spring	1-3/8" Rivet Spacing



SK-DP1 PANEL REINFORCEMENT PLATE

This aluminum Doubler Plate is used with all #6 SKFO65 and ZGF65
Flush Head ZLoc® Studs to add panel strength.

